



OFF-GRID HYBRID SOLAR INVERTER 3500 / 5500 PF 1.0

Hybrid Power System Inverter 3500 / 5500 are a multi-function inverter/charger, combining function of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/Solar charger priority, and acceptable input voltage based on different applications.

FEATURES

- Pure sine wave inverter & ECO friendly
- Configurable input voltage range for home appliances and personal computers.
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger priority.
- Compatible to mains voltage or Generator power.
- Auto restart while AC is recovering & Cold start function.
- Overload/ Over temperature & Short circuit protection.
- Smart battery charger design for optimized battery performance.
- ON / OFF Bypass Switch
- Minimum PV Voltage 170V, can work without battery.

SOLAR INVERTER

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SPECIFICATIONS
MODEL
3500
5500
LINE MODE

Input Voltage Waveform	Sinusoidal (Utility or Generator)	
Nominal Input voltage	230Vac	
Low Loss voltage	170Vac±7V (UPS); 90Vac±7V (Appliances)	
Low Loss Return voltage	180Vac±7V (UPS); 100Vac±7V (Appliances)	
High Loss Voltage	280Vac±7V	
High Loss Return Voltage	270Vac±7V	
Max AC Input Voltage	300Vac	
Nominal Input Frequency	50Hz / 60Hz (Auto detection)	
Low Loss Frequency	40±1Hz	
Low Loss Return Frequency	42±1Hz	
High Loss Frequency	65±1Hz	
High Loss Return Frequency	63±1Hz	
Output Short Circuit Protection	Circuit Breaker	
Efficiency (Line Mode)	>95% (Rated R load, battery full charged)	
Transfer Time	10ms typical (UPS) 20ms typical (Appliances)	

INVERTER MODE

Rated Output Power	3.5KW	5.5KW
Output Voltage Waveform	Pure Sine Wave	
Output Voltage Regulation	230Vac±5%	
Output Frequency	50Hz	
Peak Efficiency	93%	
Overload Protection	5s@≥150% load; 10s@110%~150% load	
Surge Capacity	2* rated power for 5 seconds	
Nominal DC Input Voltage	24Vdc	48Vdc
Cold Start Voltage	23Vdc	46Vdc
Low DC Warning Voltage	@load <50%: 23.0Vdc, @load ≥50%: 22.0Vdc	@load <50%: 46.0Vdc, @load ≥50%: 44.0Vdc
Low DC Warning Return Voltage	@load <50%: 23.5Vdc, @load ≥50%: 23.0Vdc	@load <50%: 47.0Vdc @load ≥50%: 46.0Vdc
Low DC Cut-Off Voltage	@load <50%: 21.5Vdc, @load ≥50%: 21.0Vdc	@load <50%: 43.0Vdc, @load ≥50%: 42.0Vdc
High DC Recovery Voltage	32Vdc	62Vdc
High DC Cut-off Voltage	33Vdc	63Vdc
No Load Power Consumption	<35W	

CHARGE MODE - UTILITY CHARGING MODE

Charging Algorithm	3-Step	
AC Charging Current (Max)	80Amp (@VI/P=230Vac)	60Amp (@VI/P=230Vac)
Bulk Charging Voltage	Flooded Battery: 29.2, AGM / Gel Battery: 28.2	Flooded Battery: 58.4, AGM / Gel Battery: 56.4
Floating Charging Voltage	27Vdc	54Vdc

CHARGE MODE - MPPT SOLAR CHARGING MODE

Max. PV Array Power	5000W	5500W
Nominal PV Voltage	240Vdc	
PV Array MMPT Voltage Range	120~450Vdc	
Max.PV Array Open Circuit Voltage	500Vdc	
Max Charging Current (AC charger plus solar charger)	100Amp	
Dimension (D*W*H) / Net Weight	100 X 300 X 440mm / 9.7 Kgs	

Safety Certification	CE
Operating Temperature Range	-10°C~ 50° C
Storage temperature	-15°C~ 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)

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Basic System Architecture

The following illustration shows basic application of this Inverter/ Charger. It also includes following devices to have a complete running system:

- Generator or Utility
- PV Modules

Consult with your system integrator for other possible system architectures depending on your requirements.

The inverter can power all kind of appliances in home or office environment, including motor-type appliances such as Tube light, Fan, Refrigerator and Air Conditioner.

